

REMARKS

Status of the Claims

Claims 1 – 17, 19 – 35 and 39 – 78 are pending. Claims 1 – 17 and 19 – 32 have been previously withdrawn and claims 76 – 78 were withdrawn by the Examiner in a previous Office Action. Claims 33 – 35 and 39 – 75 were examined in the most recent Office Action. Minor clarifying amendments have been made to claims 66, 67 and 69 in this response. No new matter has been added.

Interview Summary

Applicants would like to thank Examiners Eli Mekhlin and Jennifer Michener for granting a telephonic interview with their representatives, Charles Lyon and Jeffrey Buchholz on June 21, 2011. Potential claim amendments and the cited references were discussed.

Rejection under 35 U.S.C. § 103(a) based on Holland and Shinoda

Claims 33, 34, 39 – 45, 51 – 53, 55 – 60 and 66 – 69 stand rejected under 35 U.S.C. 103(a) as allegedly obvious over U.S. Patent No. 5,468,575 to Holland, *et al.* (hereinafter “Holland”) in view of U.S. Patent No. 5,376,480 to Shinoda, *et al.* (hereinafter “Shinoda”). Applicants respectfully traverses this rejection.

To reiterate, Holland describes a lead-acid battery with a fibrous web positioned in the free spaces of the battery which temporarily absorbs the “changing free electrolytic volume” of the battery (see col. 3, lines 18 – 28). As explained by Holland, this additional liquid electrolyte “sponge” ensures that the battery can be operated in the upright or horizontal positions (see Abstract and col. 2, lines 41 – 66). The Examiner acknowledges that Holland does not teach using a fibrous material in fiber form and cites Shinoda as a secondary reference for that purpose (“[...] Shinoda, which deals with battery production, teaches that fibers can be disposed in the battery electrolyte to improve the impact resistance of the battery”, see page 4 of Office Action). According to the Examiner, the teachings of Shinoda would have motivated a person of ordinary skill in the art to replace the fibrous web of Holland with a fibrous material in fiber form because “Shinoda teaches that to do so improves the durability of the battery while also acting as an electrolyte absorbent” (see page 4 of Office Action).

In the last response Applicants argued that one skilled in the art would have had no

rational reason to make this proposed modification because *inter alia* (a) Holland and Shinoda relate to different types of batteries (lead acid vs. alkaline batteries), (b) the fibers of Shinoda are located within an electrode of the alkaline battery (vs. outside the electrodes in the claims) and (c) the motivation based on Shinoda (increased impact resistance of the electrode and therefore durability of the battery) does not translate in the context of the proposed modification of Holland. These arguments were repeated during the telephonic interview and the Examiner acknowledged that they had merit. The Examiner then proposed an alternative argument whereby, instead of replacing the fibrous web of Holland with a fibrous material in fiber form one skilled in the art would have been motivated to add a fibrous material in fiber form to the electrolyte of Holland (i.e., leaving the fibrous web intact).

Applicants respectfully disagree and submit that this alternative argument is still based entirely on improper hindsight reconstruction. Again, the Examiner is reminded that Shinoda teaches the addition of fibers to the electrode of an alkaline battery in order to increase impact resistance of the electrode and therefore durability of the battery. Applicants therefore fail to see why a person of ordinary skill reading Shinoda would feel inclined to add those fibers to the electrolyte of an alkaline battery that already includes a significant amount of fibrous material in the form of a fibrous web. In addition, Applicants respectfully note that the pending claims all require that the fibrous material in fiber form be disposed in the electrolyte between the electrodes (also called plates) of the battery. The Examiner has not pointed to any teachings in Holland or Shinoda that would motivate a person of ordinary skill to specifically introduce fibers in this location of the battery.

For all of these reasons and those discussed during the telephonic interview, Applicants respectfully submit that the rejection based on Holland in view of Shinoda should be removed (whether based on the Examiner's original argument as set forth in the Final Office Action or the Examiner's alternative argument as presented during the Interview).

Other rejections under 35 U.S.C. § 103(a)

The remaining claims (i.e., claims 35, 46 – 50, 54, 61 – 65 and 70 – 75) are rejected under 35 U.S.C. § 103(a) based upon four different combinations of references. All of these combinations rely on the base combination of Holland and Shinoda. Thus, Holland and

Shinoda are combined with U.S. Patent No. 6,150,056 to Ingaki, *et al.* (hereinafter “Ingaki”), U.S. Patent Application Publication No. 2003/0182972 to Reher, *et al.* (hereinafter “Reher”), U.S. Patent No. 6,306,539 to Zguris (hereinafter “Zguris”) or U.S. Patent No. 6,227,009 to Cusick *et al.*, (hereinafter “Cusick”). These secondary references are cited for the sole purpose of allegedly teaching limitations that are found in these dependent claims (e.g., chemical nature of electrolyte, chemical nature and physical dimensions of fibers).

Rejected claims 35, 46 – 50, 54, 61 – 65 and 70 – 75 all depend from independent claim 33, 51, 66, 67 or 69. These independent claims were all rejected over the base combination of Holland and Shinoda. As discussed above, the base combination of Holland and Shinoda fails to render these independent claims obvious. Applicants submit that the additional references (Ingaki, Reher, Zguris and Cusick) which were cited for limitations found in the dependent claims do not cure the deficiencies of the combination of Holland and Shinoda. Applicants therefore respectfully submit that claims 35, 46 – 50, 54, 61 – 65 and 70 – 75 are also allowable over the cited art.

Conclusion

Applicants would like to thank the Examiner for her time and consideration of this case. If a telephone conversation would help clarify any issues, or help expedite prosecution of this case, Applicants invite the Examiner to contact the undersigned at (617) 248-5222. Additionally, please charge any fees that may be required or credit any overpayment to our Deposit Account 03-1721, referencing docket number 2009018-0032.

Respectfully Submitted,
CHOATE, HALL & STEWART LLP

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/Jeffrey E. Buchholz/
Jeffrey E. Buchholz
Attorney for Applicant
Registration Number 60,544

PATENT DEPARTMENT
CHOATE, HALL & STEWART LLP
Two International Place
Boston, Massachusetts 02110
Telephone: (617) 248-5000
Facsimile: (617) 502-5002
patentdocket@choate.com